

CLAIMS

1. A method for treating an inflammation-mediated condition of the eye in an individual, comprising: implanting into the vitreous of the eye a bioerodible implant comprising a steroidal anti-inflammatory agent and a bioerodible polymer, wherein the implant delivers the agent to the vitreous in an amount sufficient to reach a concentration equivalent to at least about 0.05 $\mu\text{g/ml}$ dexamethasone within about 48 hours and maintains a concentration equivalent to at least about 0.03 $\mu\text{g/ml}$ dexamethasone for at least about three weeks.
2. The method according to claim 1, wherein the steroidal anti-inflammatory agent is selected from the group consisting of cortisone, dexamethasone, hydrocortisone, methylprednisolone, prednisolone, prednisone, and triamcinolone.
3. The method according to claim 1, wherein the steroidal anti-inflammatory agent is dexamethasone.
4. The method according to claim 1, wherein the implant delivers the agent to the vitreous in an amount sufficient to reach a concentration equivalent to at least about 0.1 $\mu\text{g/ml}$ dexamethasone within about 48 hours and maintains a concentration equivalent to at least about 0.03 $\mu\text{g/ml}$ dexamethasone for at least about three weeks.
5. The method according to claim 1, wherein the implant delivers the agent to the vitreous in an amount sufficient to reach a concentration equivalent to at least about 0.05 $\mu\text{g/ml}$ dexamethasone within about 48 hours and maintains a concentration equivalent to at least about 0.05 $\mu\text{g/ml}$ dexamethasone for at least about three weeks.
6. The method according to claim 1, wherein said concentration is maintained for least about four weeks.
7. The method according to claim 1, wherein the steroidal anti-inflammatory agent comprises about 50-80 weight percent of the implant.

8. The method according to claim 7, wherein the steroidal anti-inflammatory agent comprises about 70% by weight of the implant.

9. The method according to claim 1, wherein the bioerodible polymer is a polyester.

10. The method according to claim 9, wherein the bioerodible polymer is polylactic acid polyglycolic acid (PLGA) copolymer.

11. The method according to claim 1, wherein the inflammation media condition of the eye is selected from the group consisting of uveitis, macular edema, acute macular degeneration, retinal detachment, ocular tumors, fungal infections, viral infections, multifocal choroiditis, diabetic uveitis, proliferative vitreoretinopathy (PVR), sympathetic ophthalmia, Vogt Koyanagi-Harada (VKH) syndrome, histoplasmosis, and uveal diffusion.

12. The method according to claim 11, wherein the inflammation-mediated condition of the eye is uveitis.

13. The method according to claim 11, wherein the inflammation-mediated condition of the eye is proliferative vitreoretinopathy (PVR).

14. The method according to claim 1, wherein the individual is a human.

15. A method for treating an inflammation-mediated condition of the eye in an individual, comprising: implanting a solid body into the vitreous of the eye, said body comprising particles of a steroidal anti-inflammatory agent entrapped within a bioerodible polymer, whereby said agent is released from the body by erosion of the polymer, and whereby said agent is delivered to the vitreous at a rate and for a time sufficient to reach a concentration equivalent to at least about 0.05 $\mu\text{g/ml}$ dexamethasone within about 48 hours, and maintains a concentration equivalent to at least about 0.03 $\mu\text{g/ml}$ dexamethasone for at least about three weeks.

16. A method for treating an inflammation-mediated condition of the eye in an individual, comprising: implanting into the vitreous of the eye a bioerodible implant comprising a steroidal anti-inflammatory agent and a bioerodible polymer, wherein the implant delivers the agent to the vitreous in an amount sufficient to reach a concentration equivalent to at least about 0.2 µg/ml dexamethasone within about 6 hours and maintains a concentration equivalent to at least about 0.01 µg/ml dexamethasone for at least about three weeks.

17. The method according to claim 16, wherein the steroidal anti-inflammatory agent is selected from the group consisting of cortisone, dexamethasone, hydrocortisone, methylprednisolone, prednisolone, prednisone, and triamcinolone.

18. The method according to claim 16, wherein the steroidal anti-inflammatory agent is dexamethasone.

19. The method according to claim 16, wherein the implant delivers the agent to the vitreous in an amount sufficient to reach a concentration equivalent to at least about 0.4 µg/ml dexamethasone within about 6 hours and maintains a concentration equivalent to at least about 0.01 µg/ml dexamethasone for at least about three weeks.

20. The method according to claim 16, wherein the implant delivers the agent to the vitreous in an amount sufficient to reach a concentration equivalent to at least about 0.2 µg/ml dexamethasone within about 6 hours and maintains a concentration equivalent to at least about 0.1 µg/ml dexamethasone for at least about three weeks.

21. The method according to claim 16, wherein said concentration is maintained for least about four weeks.

22. The method according to claim 16, wherein said concentration is maintained for least about six weeks.

23. The method according to claim 16, wherein the steroidal anti-inflammatory agent comprises about 50-80 weight percent of the implant.

24. The method according to claim 23, wherein the steroidal anti-inflammatory agent comprises about 70% by weight of the implant.

25. The method according to claim 23, wherein the steroidal anti-inflammatory agent comprises about 50% by weight of the implant.

26. The method according to claim 16, wherein the bioerodible polymer is a polyester.

27. The method according to claim 26, wherein the bioerodible polymer is polylactic acid polyglycolic acid (PLGA) copolymer.

28. The method according to claim 16, wherein the inflammation media condition of the eye is selected from the group consisting of uveitis, macular edema, acute macular degeneration, retinal detachment, ocular tumors, fungal infections, viral infections, multifocal choroiditis, diabetic uveitis, proliferative vitreoretinopathy (PVR), sympathetic ophthalmia, Vogt Koyanagi-Harada (VKH) syndrome, histoplasmosis, and uveal diffusion.

29. The method according to claim 28, wherein the inflammation-mediated condition of the eye is uveitis.

30. The method according to claim 28, wherein the inflammation-mediated condition of the eye is proliferative vitreoretinopathy (PVR).

31. The method according to claim 16, wherein the individual is a human.

32. A method for treating an inflammation-mediated condition of the eye in an individual, comprising: implanting a solid body into the vitreous of the eye, said body comprising

particles of a steroidal anti-inflammatory agent entrapped within a bioerodible polymer, whereby said agent is released from the body by erosion of the polymer, and whereby said agent is delivered to the vitreous at a rate and for a time sufficient to reach a concentration equivalent to at least about 0.2 µg/ml dexamethasone within about 6 hours, and maintains a concentration equivalent to at least about 0.01 µg/ml dexamethasone for at least about three weeks.

33. A solid bioerodible implant for treating an inflammation-mediated condition of the eye, consisting essentially of: dexamethasone particles entrapped within a polylactic acid polyglycolic acid (PLGA) copolymer, wherein the implant comprises about 70 percent by weight of dexamethasone and about 30 percent by weight of PLGA, wherein the total mass of the implant is about 800-1100 µg, and wherein the implant releases at least about 10% of the drug load within 1 week when measured under infinite sink conditions *in vitro*.

34. A kit for treating an inflammation-mediated condition of the eye in an individual comprising:

- a) a container comprising a bioerodible implant comprising dexamethasone and polylactic acid polyglycolic acid (PLGA) copolymer in a ratio of about 70/30; and
- b) instructions for use.